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<b>Notice of Allowability</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/642,874	UPCHURCH, CHARLES J.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Robert R. Koehler	1775	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the originally-filed application papers.
2. ☒ The allowed claim(s) is/are 1-22.
3. ☐ The drawings filed on \_\_\_\_\_ are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some\* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

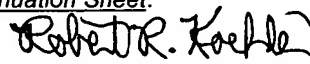
Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☒ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☒ including changes required by the attached Examiner's Amendment/ Comment or in the Office action of Paper No./Mail Date 02202005.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |  |   |
|--|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)   | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)           |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____ |
| 3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No./Mail Date <u>12152003</u> | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment                   |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material                               | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance  |
|  | 9. <input checked="" type="checkbox"/> Other <u>See Continuation Sheet</u> .          |

  
**ROBERT R. KOEHLER**  
**PRIMARY EXAMINER**  
ART UNIT 1775

**DETAILED ACTION*****Drawings***

The drawings are objected to because particular features described in the specification are not properly presented in Figure 2, Figure 4, and Figure 6. **1.** In Figure 2, "system **26**" is missing from the drawing. System **26** includes hooks **28** and struts or arms **30**, as described at lines 8 to 18 on page 11 of the specification. Reference number **26** should be indicated in Figure 2 by using a split line which points to reference numbers **28** and **30**. See sheet (1) of the "Suggested Drawing Corrections by Examiner" for the placement of reference number **26** and its associated split pointer line. **2.** In Figure 4, the piece of solid aluminum has been misnumbered as **100**. Lines 19 and 20 on page 19 of the specification identify the solid aluminum in Figure 4 as reference number **104**. See sheet (2) of the "Suggested Drawing Corrections by Examiner" for the replacement of reference numeral **100** with reference numeral **104**. **3.** In Figure 6, the location **132** is missing from the drawing. Location **132** can be found where the passage **128** flares out to a triangular slit or slot **134**, as described at line 21 on page 21 to line 4 on page 22 of the specification. Reference number **132** should be indicated in Figure 6 by using a single line which points to the origin of triangular slit or slot **134**. See sheet (1) of the "Suggested Drawing Corrections by Examiner" for the placement of reference number **132** and its associated single pointer line. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be

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necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Allowable Subject Matter***

Claims 1 to 22 are allowed.

The following is an examiner's statement of reasons for allowance: The prior art search has not produced any references which teach, suggest, or disclose applicant's claimed apparatus for applying a thin aluminum layer to an iron article wherein the apparatus includes a system comprising a fluid supply for delivering a fluid under pressure into a container holding liquid aluminum and delivering a high velocity aluminum mist from an outlet nozzle directly to the iron article. The prior art search has not produced any references which teach, suggest, or disclose applicant's claimed method of applying a thin aluminum layer to an iron article including the steps of delivering a fluid into a container holding liquid aluminum, thereby pressurizing the container, producing an aluminum mist by the fluid, and projecting the aluminum mist through an outlet of the container directly to the iron article, thereby producing a thin aluminum layer on the iron article. The prior art search has not produced any references which teach, suggest, or disclose applicant's claimed iron article having a layer of aluminum on an exterior portion wherein the aluminum layer *must be absolutely intact and free of cracks* in a 180° bend test as claimed by the applicant, or the aluminum layer *must be absolutely intact when a bead of welding rod is welded by an electric arc to the iron article*.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue

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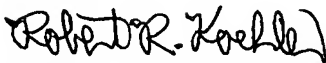
fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

***Conclusion***

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Robert Koehler whose telephone number is **(571) 272-1536**. The Examiner can normally be reached on Tuesday to Friday from 9:30 AM to 7:00 PM. The Examiner can also be reached on alternate Mondays.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Deborah Jones, can be reached on **(571) 272-1535**. The fax phone number for the organization where this application or proceeding is assigned is **703-872-9306**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at **866-217-9197** (toll-free).



**ROBERT R. KOEHLER  
PRIMARY EXAMINER**

**Art Unit 1775  
February 21, 2005**